



garden cuttings

a monthly newsletter for the discerning gardener

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Planning the next issues

Unfortunately, this second issue of *Garden Cuttings*' has to go to press before we have had much opportunity to judge the reactions of the one thousand or so people to whom we sent the first issue.

The difficulty with a publication of this sort is to strike the right balance between being too eclectic, and thereby appealing to a minority that is too small for economic viability, and being too 'popular', and thereby defeating the object.

We hope, therefore, that you will continue to let us have your comments and your suggestions, so that we can select news items that will be of interest to a sufficient number of people. There is a mass of horticultural information available to us that we can pass on; the problem is not what to include but what to leave out.

So tell us what you would like to hear about. Remember however, that we do not aim to be a 'popular' gardening journal; we are not going to tell you what you should be doing in your garden each month - we expect that you will already know that.

One criticism has been made of our first issue that has demanded immediate attention. Due in part to an accident - or perhaps it should be called a communication fault - it appeared to be more or less anonymous. So 'we' have now emerged from a remote corner and placed ourselves where we should have been from the start, right at the top of this page, under the masthead. It is exactly twenty years since I made my first venture into horticultural journalism; in 1961 I became a regular contributor to the English gardening magazine 'Amateur Gardening'; a little later I became involved with two other English magazines, both dealing with commercial horticulture, and three years later came to Australia.

For the past five or six years my name has been appearing each month in the gardening pages of a certain well-known national magazine, and has been hiding behind a pseudonym in another. Between writing magazine articles and editing '*Garden Cuttings*' my time is spent as a horticultural consultant. And that, I hope, is enough to throw off the cloak of anonymity I have been accused of wearing, except to say that '*Garden Cuttings*' is a purely personal and private venture; it has no connection whatever with any other organization.

Finally, we do hope that you will show your copy of *Garden Cuttings*' to any of your friends who could be interested. We have no advertising budget at this stage, so rely on the word being passed from one interested reader to another.

TIM NORTH

The conservation of rare and threatened plants

One of the major problems that face restorers of old gardens is that many of the plants that once graced these gardens and which are characteristic of their age have virtually disappeared from cultivation. One need only compare the list of a present-day commercial nursery with one of, say, a hundred years ago to realize how the range of plants grown by the trade - and therefore generally available to the public, has narrowed. This is due mainly to economic pressures and changing fashions, but the debilitation of stocks through virus infections and constant vegetative propagation has also played a part.

The problem, however, has more than a historical significance, for it is now widely realised that many of the cultivars or mutants of species that are in danger of disappearing contain gene complexes capable of providing a combination of physiological and morphological characters for future breeding which, once lost, could never be replaced. This loss of genetic diversity can mean greater risk from disease, especially when vegetative propagation results in only a single clone being distributed. The paradox which faces plant breeders is that new varieties, because they are in some respects better than the ones which they replace, destroy the base on which they themselves were built.

The conservation of rare and threatened plants is now recognized as being of such importance, from the scientific, the historical and the educational viewpoint that a considerable amount of work is now being carried out in the United Kingdom and other European countries. It may be of interest to summarise what is being done.

1. The Threatened Plants Committee (TPC) which is based on Kew Gardens, was set up in 1974 by the Survival Service Commission of the International Union for the Conservation of Nature and Natural Resources. It is concerned basically with the gathering of information of which species in the wild are threatened or rare, and helping to stimulate efforts for their conservation. It has been estimated that out of a total of 11,500 indigenous European species almost 2,000 are threatened or dangerously rare.

2. The National Trust of Great Britain and the Royal Botanic Gardens, Kew, are collaborating in developing a central record system of the plants in gardens owned by the National Trust.

(CONTINUED OVER)

3. The Garden History Society of Great Britain is also compiling a register of garden plants in danger of extinction.
4. The International Council for Monuments and Sites (COMOS), which is sponsored by UNESCO, is surveying historic gardens and landscapes.
5. The International Dendrology Society is conducting its own survey with a view to conserving rare trees and shrubs in cultivation.
6. The Hardy Plant Society of Great Britain has produced a directory of hardy plants, aimed at listing and tracing species and cultivars in nurseries and private gardens.

The most important recent development, however, was the holding of a conference in October 1978 under the auspices of the Royal Horticultural Society on 'the practical role of gardens in the conservation of rare and threatened plants'. This conference was attended by representatives of more than a hundred interested organizations.

It was agreed at this conference that the preservation of private gardens, as the recipients of plants, was of prime importance, but the problems involved in changes of ownership, lack of funds, and a shortage of experienced gardeners were recognized.

The conference went on to list the following categories of plants as being important:-

1. Historically important hybrids and cultivars, including those considered representative of particular periods or of aesthetic value.
2. Genetically important hybrids and cultivars, and distinct variants of species.
3. Cultivars of value because of unusual qualities by-passed during the main stream of development, e.g. late-flowering or early-maturing.
4. Species and variants in cultivation from areas of the world where access to fresh stocks is difficult or impossible.
5. Species and variants deemed to be threatened or rare in the wild of which stocks were available in cultivation.

As it was felt that plants in the wild were being adequately looked after by the TPC this conference confined its resolutions to cultivated plants. These resolutions dealt with such matters as the urgent need for a central register, the formation - as a long-term project - of national reference collections of living plants, the need to co-ordinate the efforts of nurserymen, botanic gardens, research and educational establishments and specialist plant societies, the influencing of public opinion, the training of gardeners, especially in the skills needed for the propagation of difficult plants, and the need to establish seed banks. It also called for the formation of a national body, to be called the Gardens and Plants Council, with functions similar to those of the Arts Council.

A Steering Committee was set up as a result of this conference, which is now known as the National Council for the Conservation of Plants and Gardens, and which includes such eminent personalities as the Director of the Royal Botanic Gardens, Kew, and the Regius Keeper of the Edinburgh Botanic Gardens. This organization has now commissioned surveys of the availability in commerce over the past fifty years of species of *Aesculus*, *Hypericum*, *Wistaria* and *Pinus*. Results suggest that there has been a sharp decline in the number of species, cultivars and hybrids in the nursery trade, that many of those that are still available come from a small number of suppliers, and in some cases from a single source. Pilot projects are planned for other plant groups, such as herbaceous and bulbous genera. A start has also been made with the establishment of National Collections of different genera.

The United Kingdom has a heritage of ten thousand or more plant species and more than twice as many cultivars. Our own heritage, of both indigenous species and imported exotics, is no less precious and we have a duty to conserve it. The dynamic start that has been given to this work overseas may perhaps be a spur to us, and we may profit from the conclusions that have been reached, and the methods which are envisaged for the future.

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Our two gardeners!

In case anyone is curious about the two little men apparently busy in their garden, on our front page, the illustration comes from Thomas Hyll's 'The Gardener's Labyrinth', published in 1577. An appropriate caption is this quotation from Thomas Tusser's 'A Hundred Good Points of Husbandrie' published just twenty years earlier.

"Through cunning with dibble, rake, mattock and spade
By line and by levell, trim garden is made".

A gift subscription for christmas .

If you have any friends who are keen gardeners why not give them a year's subscription to '*Garden Cuttings*' as a Christmas gift this year?

Fill in one of the subscription application forms with your friend's name and address, and at the bottom write 'Gift from ...' followed by your own name and address. Provided that we receive this, together with your remittance of \$10.00 by 1st December we will send your friend '*Garden Cuttings*' each month for a year, and with the December issue we will enclose a gift card bearing your name.

Australia's first horticulturist

George Suttor was born in 1774, the son of a successful and well respected nurseryman in the Chelsea district of London. As a young man he was fascinated by the prospects he saw offered by a life in the new colony of New South Wales, and, through his father, he succeeded in getting an interview with Sir Joseph Banks, who at that time was concerned with supplying the colony with plants that would provide food.

Impressed by the young man's enthusiasm, Banks made arrangements for him to take out some eighteen boxes of plants, including grape vines, the best sorts of apples and pears, and hops. In 1799 Suttor, with his bride of less than a year, sailed with his precious consignment in H.M.S. Porpoise, but a severe storm forced the ship back into harbour. In March of the following year he set sail again, arriving at the Cape of Good Hope - where he stayed for four months - in May, and finally in Sydney on the 6th November.

In return for caring for the plants on the voyage Suttor was given a grant of land of some 200 acres at Baulkham Hills, then one of the largest land grants ever made. He built a house there, which he called Chelsea Farm - it still stands to-day. He planted grape vines, and was later to write a book on the cultivation of grapes in Australia. He started a citrus orchard with three orange trees presented to him by Colonel Paterson, who had brought them from San Salvador, and a great many lemon trees which he raised from seed. In addition he grew wheat and maize, and bred sheep and cows. It can be said, therefore, that Australian horticulture started at Chelsea Farm.

In about 1820 - the exact date is not clear - a plague of caterpillars, described by Suttor as being 'about an inch in length, yellowish-green with black stripes on their sides' descended upon the area, eating all the grass and stripping the leaves from the trees.

Only seven years earlier Deputy Surveyor General Evans, following the path of Wentworth, Lawson and Blaxland over the Blue Mountains, had discovered the plains around what was to become Bathurst. Suttor decided to try his fortunes in this new area, and was given a further grant of some 320 acres. In February 1822 he set forth across the mountains with his family, his sheep and his cows; the journey took sixteen days. There he built a cottage which he called 'Brucedale' and started clearing the land for fresh crops. After a few years, however, he decided to return to Chelsea Farm, leaving 'Brucedale' in the care of his third son, William.

William planted an extensive orchard, mainly apples and pears, around the cottage, and in 1837 started to build a new house, much larger and also called 'Brucedale', on top of the hill which overlooks the orchard. This house has remained in the occupation of the Suttor family without a break ever since, and to-day is the home of William's great-grandson. The pear trees which William planted, some 155 years ago, still stand in the orchard below, huge trees some 50 feet in height. In a short history of Bathurst written in 1912 they are described as 'still bearing fruit of the highest quality'.

Today seven of these pear trees remain and are still bearing fruit, though the quality is somewhat diminished. A few old plum trees and two mulberries also remain: unfortunately the apples planted by William died during a very wet period in the 1950's.

George Suttor was made a Fellow of the Linnaean Society during a visit to England and Europe during the years 1839-45. He became one of the most eminent botanists and horticulturists in the Colony, and was a great friend of the botanist Cunningham, who lived with him in his house in Elizabeth Street, Sydney (on the site of the Mark Foy's Building) for some time. George Suttor died in 1859 at the age of 85.



The orchard at 'Brucedale'. Some of the original pear trees can be seen in the middle distance, and in the foreground is all that remains of George Suttor's cottage.

A nineteenth century heritage rose garden

One group of 'old-fashioned' plants that has made a spectacular return to popularity over the last ten years or so is the old roses. English gardeners were perhaps the first to recall the value of these plants, their diversity, their beauty and their perfume, their resistance to disease and generally undemanding habits; to-day they are used in ever increasing numbers both as specimen plants, in collections and in mixed shrub borders.

Interest in these old roses in Australia has taken a little longer to awaken, but is now gaining pace, thanks to the efforts of organizations like Heritage Roses in Australia - of whom we hope to say more in a latter issue - and nurserymen like Deane Ross in South Australia, who has just republished his excellent little book 'Shrub Roses in Australia', and Roy and Heather Rumsay in New South Wales.

So it is interesting to hear of a new project getting off the ground in Pinjarra, Western Australia, where Major Noel Frost, a retired Army Officer, has acquired a tract of land and formed the Heritage Rose Garden Committee. They are hopeful of opening the first stage of the garden this spring. The concept of the garden, which will ultimately have over a thousand roses, is to be nineteenth century, with a Gazebo as its central point, a small waterfall and stream leading to a large lily pond, over which will be a wooden bridge with rambling roses. Along the walkways will be old gas lamps, and the Gazebo will be lit by gas.

We hope to bring more news of this interesting project later.

Trees and shrubs and noise

Virtually everyone who lives in an urban or suburban environment is affected by noise, and the problem is becoming more and more acute.

Studies of noise from motor vehicles are well advanced in the U.S.A. and some work on the problem has been undertaken in Europe. The results of these studies show how trees and shrubs can best be used as protection against traffic noise.

It is essential that the planting is done as close to the source of noise as possible, increasing the planting around the house will have little effect. The first essential, therefore, is a solid wall of thickly planted trees and shrubs, as wide as possible and as close to the street or road as possible. It has been found that all parts of plants absorb some sounds and scatter or diffuse others; it is probable that large coarse leaves are more effective in scattering low frequency sounds while small dense foliage is more effective in diffusing the higher ones. Mixed plantings, therefore, are more effective because of their effect on different noises.

The next essential is that the space between the road and the screen has as rough a surface as possible. It is unlikely that trees can be planted on the road edge, but the space necessarily left unplanted can be used to further reduce the noise. Rough unmown grass or short untrimmed shrubs will absorb far more noise than smooth flat surfaces such as concrete or even mown grass.

As with windbreaks, noise barriers need to be longer than the site to be protected.

The best plants to use will be those which grow quickly and thickly. Fortunately, several of our native trees, particularly Melaleuca and Hakea species, fulfil this requirement.

Cut flower preservatives

Various proprietary products for extending the vase life of cut flowers are now on the market. Other substances such as sugar and aspirin are sometimes said to have the same effect.

During the past eight years or so, a considerable amount of research has been carried out on what, in scientific parlance, is called 'the post-harvest physiology' of cut flowers and two International Symposia have been held on the subject.

This research has shown that four main factors are involved - temperature, water relations, carbohydrate supply, and growth regulators. Temperature, of course, can be controlled quite easily, but relatively short exposures to higher temperatures will greatly reduce vase life.

Water relations means, in effect, the ease with which water can pass through all the tissue - stem, foliage, neck and flower. 'Bent neck' of cut roses is all too common, and occurs when the water needs of the foliage and the flower are provided at the expense of the relatively unsclerified tissue just below the flower.

Acidic solutions move much more readily through the stems of cut flowers than solutions which are neutral or alkaline, so considerable improvement can be achieved by adding sufficient acid - citric acid is generally used - to reduce the pH to 3 or 3.5.

Then there is the problem of 'plugging' of the cut surface of the stem by microbes, colloidal material in the water, or exudations from plant tissue. Various 'biocides' are therefore commonly used, with the object of precipitating this material to the bottom of the vase, and keeping the stem ends clean. Of these, aluminium sulphate is one of the most effective, as it also has the effect of lowering the pH of the water.

Flowers are often cut - and sold - in the bud stage. This means that as the flower develops there is a considerable increase in dry weight which cannot be supported without additional carbohydrate. This is generally supplied in the form of sucrose, but the optimum sucrose content varies with different flowers - for example concentrations of more than 1.5% have been found to cause severe foliage burn in roses, yet to have little effect on carnations.

Plant tissue produces ethylene gas which ages the flowers. This can be counteracted by a complex consisting of silver and thiosulphate called STS. 8-hydroquinoline citrate and aminoethoxyvinylglycine are also sometimes used in cut flower preservatives as ethylene inhibitors.

Cytokinins are natural plant growth regulators which can extend the life of some cut flowers. There may well be others.

Most commercial cut flower preservatives, therefore, contain a combination of some or all of the following:-

- an acid
- a biocide
- sugar in some form
- an ethylene inhibitor
- a natural growth regulator

Aspirin, incidentally has no effect whatever.

The Royal Botanic Gardens Sydney

By July 1788, just six month's after the first settlement of Sydney Cove, Governor Phillip established a government farm in an attempt to alleviate serious food shortages. This farm was within what is now the Royal Botanic Gardens.

Governor Phillip also set aside a large area including the present Botanic Gardens, the Domain and Hyde Park as an open space. Later Governor Macquarie enclosed part of this area for his residence, and had a road built through it for his wife's recreation. The traditional foundation date of the gardens is taken as the date on which Mrs. Macquarie's road was completed - 13th June, 1816.

A few trees representative of the original flora remain, like the Swamp She-Oak (*Casuarina glauca*), the Forest Red Gum (*Eucalyptus tereticornis*), and the Cheese Tree (*Glochidion ferdinandi*).

Features of the gardens to-day include the Pyramid Glass-house (see last issue of *Garden Cuttings*), the Rose Garden, Palm Groves, the recently completed Succulent Garden, and an Educational Centre for school groups. Guided walks leave from outside the Educational Centre (by the Wooloomooloo gate - the one nearest the Art Gallery) at 9.30 a.m. on Wednesdays and 10.00 a.m. on Fridays, public holidays excepted.

The present National Herbarium of New South Wales - which is situated within the gardens, contains over one million species, some collected by Banks and Solander. After years of overcrowding in the old building, a new Herbarium is now under construction,

next to the old one. This new building will not only enable the collection to be stored under far more favourable conditions and give the staff reasonable working conditions, but will also enable modern techniques to be used, for example a scanning electron microscope for detailed studies of plant structures.

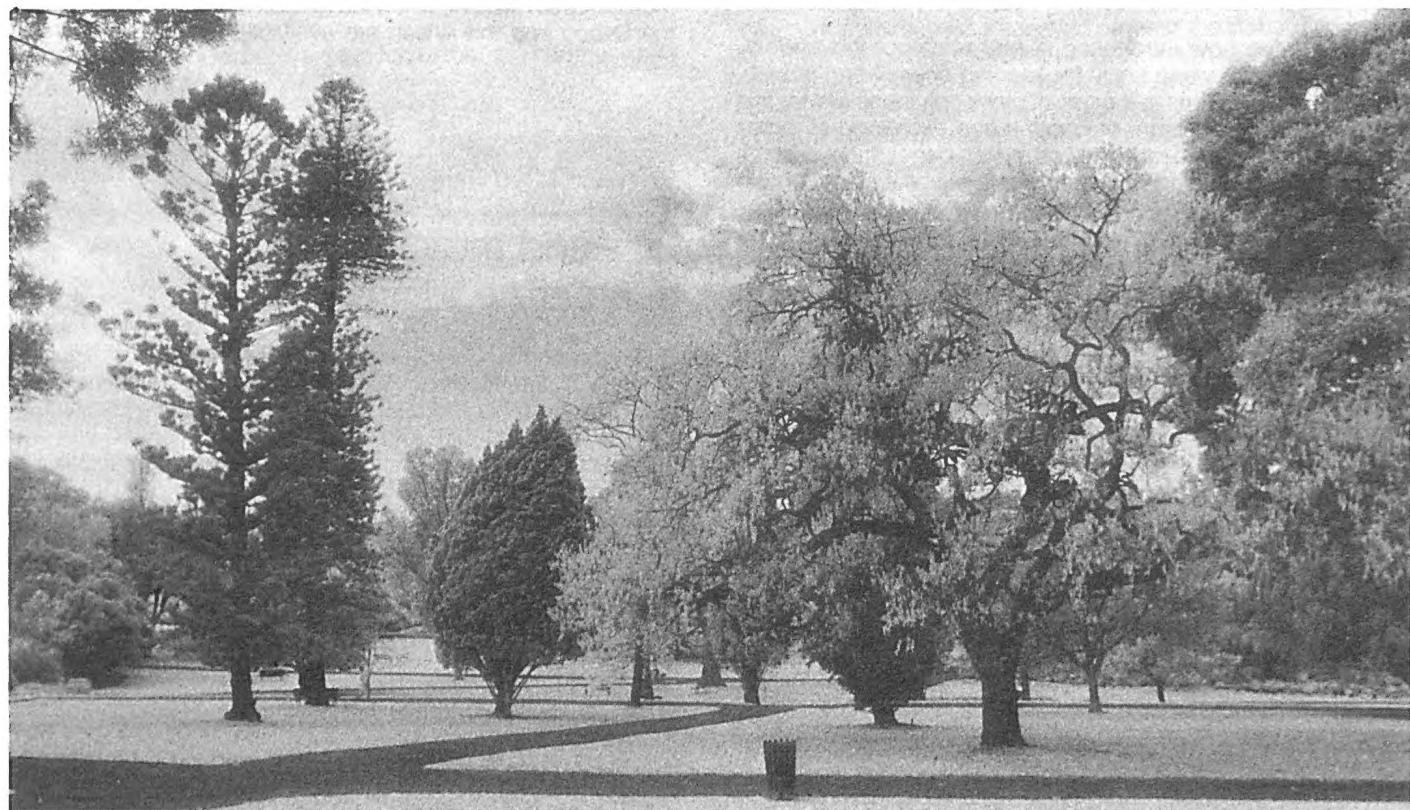
The old herbarium building will then house a Visitors Centre, which will include an Enquiry Counter and Bookshop, and a service point for the distribution of information. It will also give space for temporary and semi-permanent displays.

Another project, which is planned to be fully operational by the Bicentenary year, 1988, is a new garden at Mount Tomah in the Blue Mountains. Thematic plantings planned for this new garden include Southern Hemisphere temperate flora - from New Zealand, southern South America, and high altitudes of South Africa and Australia - and Northern Hemisphere temperate flora, including many conifers and deciduous species.

Glyphosate

Glyphosate is the active ingredient in the now widely used 'Zero Weedspray' and in 'Roundup'. Although non-residual in the soil it is non-selective in its operation, and nurserymen in the U.S. have reported that foliage and stem injury has appeared even four years after accidental treatment of various ornamental plants. Another warning is that it should not be used in galvanized or unlined steel containers - apparently the chemical reacts with the metal to produce explosive hydrogen gas.

On the subject of glyphosate, the Murphy Chemical Company of the U.K. who market it under the trade-name 'Tumbleweed' have now produced it in the form of a brush-on gel. Given the extremely useful application of this chemical to treating troublesome weeds in awkward places, such as in rockeries or around established plants, as well as in lawns, this sounds like a good idea.



Part of the Royal Botanic Gardens, Sydney. The large spreading tree on the right is a Japanese Oak, *Quercus Acutissima*, now comparatively rare in cultivation. This specimen is believed to be between 80 and 100 years old.

Photo by Rudi van Starren

GARDEN GEAR

A new soil moisture indicator

A new inexpensive soil tensiometer - an instrument for measuring soil moisture content - has been designed by Dr. Greachen of the C.S.I.R.O. Division of Soils. It consists of a hollow plastic tube tipped with a porous ceramic cup; the tube and the cup are filled with water and sealed. The cup and part of the tube are inserted in the soil amongst the plant roots when the movement of the water in the sealed tube indicates whether the soil is moist or not. If the soil is saturated there will be a zero reading, but as the soil dries out it exerts more pressure on the cup, so that water is drawn through the cup. A level on the tube shows when it's time to water.

This tensiometer is designed to be placed more or less permanently amongst plants, in a central position, where it will give a reading on the soil moisture content in that area, or else in one pot amongst a group of pots, to give a general indication of when those pots need watering. It is not designed to be moved from place to place to give 'spot' reading. While it gives a clear indication of soil moisture content, the decision of when to water and how much to apply will naturally depend on the type of plants being grown - some native plants, for example, will not tolerate over-watering, while vegetables and most shallow rooting plants require much higher soil moisture levels.

Called 'The Garden Sentinel' this instrument is manufactured by Reed Irrigation System Pty. Ltd., and available through their distributors in all states. The retail price is around \$8.50 to \$10.50.

A weed control mat

Sarlon have now introduced a mat made of woven U.V. stabilized polypropylene fabric for keeping down weed growth. Some of the objections to the use of black polythene film for this purpose have been that it prevents a free exchange of gases between air and soil, and makes water penetration difficult, particularly on a sloping site where there will be a considerable run-off of water.

The Sarlon weed control mat overcomes these objections because it is permeable to both water and air. At the same time weed growth is effectively prevented. The strong woven construction makes it resistant to tearing and it is easily cut to any required shape.

It is available from most large nurseries, garden centres and hardware stores, as well as from the garden departments of certain variety stores.

A prize winning water timer

A few weeks ago the Sabco Timer Tap was awarded one of the two Prince Phillip Prizes for Australian Design.

Water is such an important natural resource, so often in short supply, that we cannot afford to squander it. And yet so often we do. This timer tap is a simple and inexpensive device - it retails for around \$18.00 - that shuts off the flow of water after a pre-determined period of time. It can be attached directly to a size 20 (3/4 inch) screw-on tap, and hose assembly, or with the use of an adaptor to a size 25 (1/2 inch) screw-on assembly; there is also an adaptor for snap-on systems, and it can be fitted to a sprinkler installation.

The timer dial is numbered from 0 to 120 minutes in intervals of 15 minutes, with other markings each representing 5 minutes. It can be reset or turned off manually at any time. The automatic shut-off is gradual and is said not to cause any 'knocking' in the pipes and therefore will not cause any damage, even if there are weak points in the plumbing. It has a tough plastic outer casing and is corrosion resistant.

There is a similar gadget on the market called the Ansan Automatic Water Minder. It is imported from the U.S. and costs almost twice as much as the Sabco. Instead of operating on a time basis, the Ansan shuts off after a pre-determined volume of water has passed through it. There are fifteen settings on the dial, but the calibration is in U.S. gallons - each setting is supposed to deliver 100 U.S. gallons. Tests however, have revealed that the actual amount is about 15% less than that claimed. Unlike the Sabco, it has an instant shut-off action which can cause 'knocking'.

The use of one of these devices is particularly useful to people who have little time during the week to water their gardens. With a sprinkler system you simply turn the tap on in the morning and leave it to turn itself off when the garden has been watered. Both the Sabco and the Ansan are available through normal retail sources.

. . . and more on turf care equipment

Following the 'Garden Gear' feature in the October issue, Mr. Charles Smith of Better Methods has sent us some further information on his range of turf care equipment.

The Levelawn principle has now been extended into eight models, for various jobs, the latest being a tractor mounted model for dealing with large areas.

The Turfdoctor, Mr. Smith points out, is really a necessity for the owner of a lawn tennis court. It can patch the worn areas at the backline with such a degree of accuracy, and so quickly, that they are there one day and gone two days later.

The Turfbarber, a lawn edging tool, is so simple to use that one customer, who is 89 years old and blind, says he can use it to full effect.

New flower and vegetable seeds

Thompson and Morgan, the seed people, have released twelve new varieties this spring, spearheaded by three interesting new vegetables.

Watermelon 'Golden Midget' is a compact variety which, because it matures early, is suitable for cooler areas. Also it has the unique ability to 'signal' when it is ripe for picking by its skin turning golden yellow.

Pumpkin 'Golden Acorn' is a 1981 All American Selection Bronze Medal winner that has been shown to do well in virtually all parts of Australia, and to be tolerant of poor soil conditions. The fruits can be harvested when immature like zucchini, later as squashes, or can be allowed to mature to a rich golden yellow pumpkin of excellent flavour. It forms a compact bush-like plant.

The Asparagus Pea, from Sicily, is a very tasty vegetable that is exceptionally high in protein and vitamins. The pods are produced from around sixty days after sowing and will continue to be produced for ten to twelve weeks in most climates. They should be harvested when no more than 2.25 cm in length - any longer and they develop fibre - and are cooked whole, preferably by steaming.

New flower seeds include Iris Pacific Coast hybrids, a perennial growing to about 45cm, flowering in late spring and early summer, with a colour range that includes veined reds and golds, greys, blues, pinks and creams: Dwarf Convolvulus Tricolor, a hardy annual, compact and non-climbing, flowering from late spring to autumn, that can be used in hanging baskets or pots, or for bedding - the colours are blue, pink and white with contrasting white or yellow centres: and a new and improved Persian Violet (*Exacum affine*) 'Midget'; this has a naturally compact habit and can be grown indoors in pots or outdoors in shade and semi-shade, in frost-free areas; it has glossy green foliage and masses of scented lavender blue flowers for up to nine months of the year.

These seeds should now be available from all Thompson and Morgan stockists.



T & Ms Pumpkin - Golden Acorn

A standard for garden soil

For most home gardeners buying a load of garden soil is rather a hit-or-miss affair both as regards quantity and quality. Not everyone has a very clear picture of what a tonne of soil should look like when it is tipped in a heap in one's driveway, and only later inspection may show that it contains rather a large proportion of stones; much later even worse trouble may appear in the form of nut-grass or onion weed, or other really bad weeds.

The great majority of soil suppliers are honest people who endeavour to supply a high-grade material. But soil is a very variable material and may not always be as good as it appears, and mistakes can occur.

There is in fact an Australian Standard, no. 2223 of 1978 'Garden soils for domestic use'. This standard starts off by flouting two popular misconceptions: one that a dark coloured soil is necessarily better than a light coloured one, and the next that one does not necessarily have to specify 'top-soil'; a perfectly acceptable garden soil may or may not contain 'top-soil'.

The Standard goes on to define 'general purpose soil', premium garden soil, and top-dressing. General purpose soils, it says, shall be of a friable and porous nature, shall contain not less than 1% by mass of organic matter, and have a pH between 5 and 8. Also the soluble salt content should not exceed 0.06% by mass of air-dried soil. It should be free of certain specified weeds and toxic materials, and should not contain more than specified amounts of roots, clay lumps, stones and rubbish. Premium garden soil has the same specifications except that it should not contain less than 5% by mass of organic matter.

It goes on to state that soils can be classified by texture as fine (i.e. a heavy soil), medium, or coarse (a light soil). Top-dressing for lawns will normally be of coarse texture, but may be medium.

Garden soil may be supplied either by mass (i.e. tonnes) or by volume (cubic metres). If supplied by mass the standard decrees that the moisture content should not be more than 10% by mass. As a rough guide an uncompacted heap of one cubic metre of soil will usually weigh between 1.2 and 1.4 tonnes.

Experienced gardeners will, of course, know whether they require soil of fine, medium or coarse texture, and whether it should have an acid or alkaline reaction; if necessary they can specify this when ordering. But how do you tell whether the heap of soil tipped onto your driveway conforms with Australian Standard No. 2223 of 1978? Without going to the trouble and expense of having a sample analysed in a laboratory you can't, and even if you did this you probably wouldn't have much chance of redress against the supplier.

Nevertheless the standard does exist, and reputable suppliers should be aware of it and will do as much as is in their power to see that the material they sell conforms to it. The moral of this is - don't buy soil from dubious sources - it may be a load of rubbish.

Those who are interested in obtaining a copy of this Australian Standard can do so by writing to:

The Standards Association of Australia,
Standards House, 80 Arthur Street,
NORTH SYDNEY, N.S.W. 2060.
and enclosing \$4.40 (includes postage)

Home gardener's handbook and diary

The Royal Horticultural Society of Victoria has joined forces with Rotary International to market the 1982 edition of the Society's 'Home Gardeners' Handbook and Diary.

The new Handbook has been changed in many respects from the two earlier editions in 1980 and 1981. Changes include - spiral binding for ease of opening - a new convenient size to fit most ladies handbags - nine pages in full colour and colour on all pages - an elegant new cover with a gloss finish - and a full list of all garden clubs, horticultural and specialist plant societies in Victoria. There is also a forward and planting guide for each month written by Kevin Heinz, and many pages of practical advice written by Noelle Weatherley, gardening editor of the Melbourne Herald.

Rotary International is helping to market the new handbook by having its members distribute some 25,000 copies to newsagents, booksellers, florists and nurseries. It will also be available from garden clubs and societies. The price is \$4.99.

Further details can be obtained from The Royal Horticultural Society Secretariat at 418A Station Street, Box Hill South, Victoria, 3128 - telephone (03) 88 7646.

The old-fashioned plant society

A Society for those with an interest in old-fashioned plants has recently been formed. The objects of this society are to exchange plants and seeds - it is hoped to establish a seed bank in due course - to publish a newsletter and to provide information on and to locate old-fashioned plants. The annual subscription is \$10.00. Further information may be obtained from Dr. W. Cochrane 'Woodbine', Queenscliff Road, Drysdale, Vic. 3222.

While we do not wish, in any way, to usurp the functions of this Society, but rather to support it, the columns of this newsletter are also available as a forum for those who wish to acquire or exchange plants rare in cultivation. We will be pleased to publish any requests of this nature that we receive, provide that the correct and full botanical name, including hybrid or cultivar name where applicable, is given.

Quote for the month

"Gardening is the only unquestionably useful job".

G. Bernard Shaw
'The Simpleton of the Unexpected Isles'

garden cuttings

Garden Cuttings is published monthly on a subscription basis. The annual subscription is \$10.00, including postage. To become a subscriber simply send your name and address, together with a remittance for \$10.00 to the address at the foot of this page, or use the application form enclosed with this newsletter. Your subscription will commence with the next issue.

Up to September 1982, we are offering a year's subscription free to anyone who likes to enrol ten or more other subscribers. Just send the names and addresses of the ten or more people, with their subscriptions (or one remittance to cover all subscriptions) together with your own name and address, and you will receive **Garden Cuttings** free for one year.

In addition commissions are available, up to September

1982, to retail nurseries, garden centres, horticultural and specialist plant societies, garden clubs and other organizations, who distribute application forms to their customers or members, provided that these forms are clearly marked with an identifying stamp.

Commission will be at the rate of 5% of the total subscriptions received, over and above ten. That is, a total of sixty subscriptions, for example, from any one source will earn a commission of \$25.00.

Address all correspondence to:

GARDEN CUTTINGS,
P.O. Box 279, Edgecliff,
N.S.W. 2027.